

**FOREIGN PATENT -- ABSTRACT**

**SUPPORT STRUCTURE OF ARCH RING IN ARCH BRIDGE CONSTRUCTION**  
**PATENT APPLICATION NUMBER- 10147006**  
**APPLICANT(S)- TAISEI CORP**  
**PUBLICATION DATE: 12/07/1999**

**PROBLEM TO BE SOLVED:** To provide a support structure of an arch ring in an arch bridge construction which can sufficiently withstand the internal stress caused by the dead weight of the arch ring stuck out to form a cantilever and can be safely and efficiently carried out because it does not require any replacement of laid horizontal members.

**SOLUTION:** This support structure is constituted of a vertical member (end post 11) vertically erected from an abutment (arch abut 2) and provided with a retaining member (backstay 12) at the rear side, vertical members 13 erected from an arch ring 4 protruding forward from the abutment (arch abut 2), and diagonals 15 directly hanging the arch ring 4 at the diagonal forward side from the connection part of the vertical member (end post 11) or the vertical member 13 and the horizontal member 14. The horizontal members 14 are laid at a position lowered by a height relative to the construction of a reinforcing girder from the top of the vertical member (end post 11) or the vertical member 13.

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